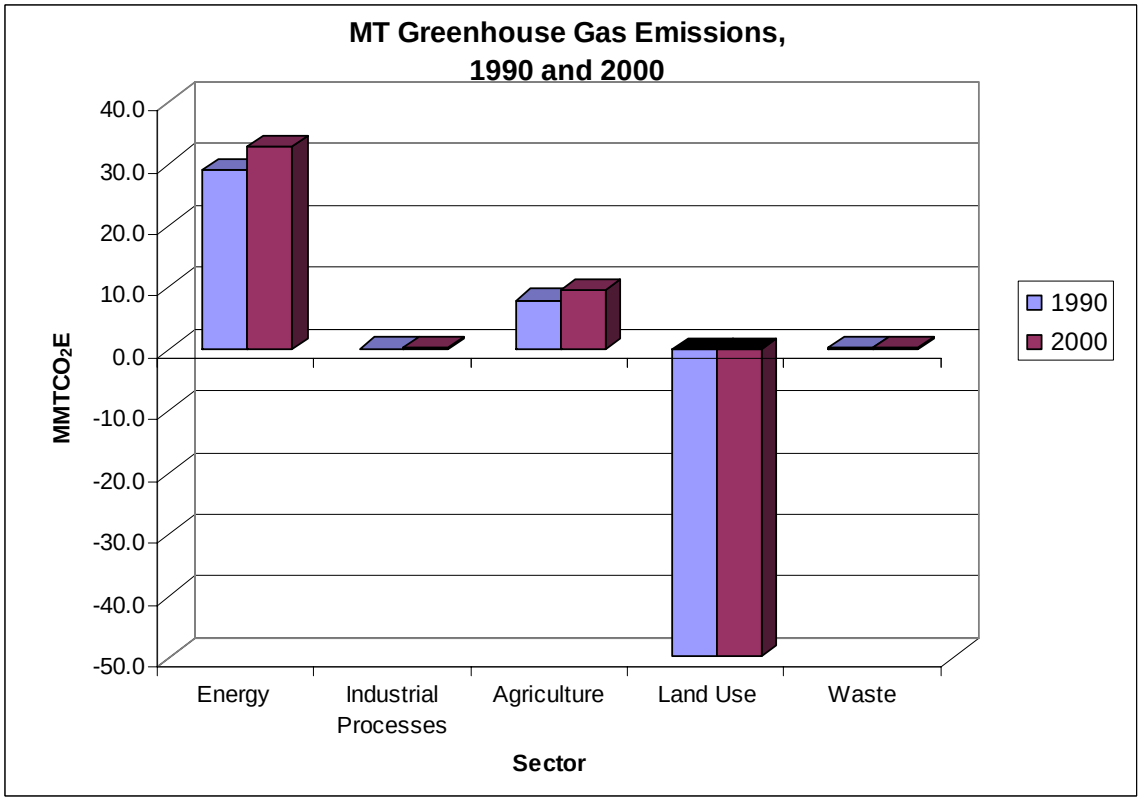
MONTANA GREENHOUSE GAS EMISSIONS AND SINKS INVENTORY: SUMMARY



The Montana Department of Environment Quality (MTDEQ) report *DRAFT Montana Greenhouse Gas Inventory and Reference Case Projections 1990-2020*, contains an inventory of Montana's greenhouse gas (GHG) emissions from 1990 to 2000.[1]

Montana is a net sink for GHGs due to its forested lands which comprise 27 percent of the total state land area. In 1990, Montana provided a sink of 12.5 million metric tons carbon dioxide equivalent ($MMTCO_2E$), which decreased by 45 percent to 6.9 $MMTCO_2E$ in 2000.

Emissions from industrial processes and waste sectors increased by 100 and 50 percent, respectively, between 1990 and 2000. Emissions from agriculture increased by 20 percent in this same time period.

[1] Historical GHG emissions estimates (1990 through 2000) were developed using a set of generally accepted principles and guidelines for state GHG emissions inventories relying to the extent possible on Montana-specific data and inputs. Many of the inventory estimates came from the US Environmental Protection Agency's (EPA's) State Inventory Tool.

1990	CO_2 ($MMTCO_2E$)	CH_4 ($MMTCO_2E$)	N_2O ($MMTCO_2E$)	HFCs, PFCs, and SF_6 ($MMTCO_2E$)	Total ($MMTCO_2E$)
Energy	*	*	*	*	29.0
Industrial Processes	*	*	*	*	0.1
Agriculture	*	*	*	*	7.9
Land Use	*	*	*	*	-49.7
Waste	*	*	*	*	0.2
Net Emissions	*	*	*	*	**-12.5**

2000	CO_2 ($MMTCO_2E$)	CH_4 ($MMTCO_2E$)	N_2O ($MMTCO_2E$)	HFCs, PFCs, and SF_6 ($MMTCO_2E$)	Total ($MMTCO_2E$)
Energy	*	*	*	*	32.8
Industrial Processes	*	*	*	*	0.2
Agriculture	*	*	*	*	9.5
Land Use	*	*	*	*	-49.7
Waste	*	*	*	*	0.3
Net Emissions	*	*	*	*	**-6.9**

Note: Totals may differ from the sum of the sources due to independent rounding. All emissions are reported in million metric tons of carbon dioxide equivalent ($MMTCO_2E$).
* The Montana state Inventory did not include emissions by gas; thus, emissions of all gases, expressed in CO_2 equivalents, are presented in the right-most column.

Within the energy sector, an increase in emissions from electricity production (6 percent), the fossil fuel industry (15 percent) and transportation (24 percent) contributed to the overall energy sector increase of 13 percent. The land use sector remained a constant sink of 49.7 $MMTCO_2E$ in both 1990 and 2000.

Per capita gross emissions from Montana were 40 $MTCO_2E$ for both 1990 and 2000, which is greater than the national average of 25 $MTCO_2E$ for this same time period.[2]

[2] The state per capita emissions value is quoted in the Montana Inventory report and is reflective of Montana's methodological decision to include emissions from electricity consumption in state rather than electricity production. Therefore, this per capita value subtracts emissions associated with exported electricity. The national per capita average is the gross emissions level.